DOCUMENT RESUME

ED 312 382 CE 053 446

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TITLE Theoretical Foundations for Self-Directed Learning.
SPONS AGENCY Oklahoma Univ., Norman. Oklahoma Research Center for Continuing Professional and Higher Education.
PUB DATE Oct 89
NOTE 6p.; Paper presented at the Annual Meeting of the American Association for Adult and Continuing Education (Atlantic City, NJ, October 1989).
PUB TYPE Speeches/Conference Papers (150) -- Information Analyses (070)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Adult Education; Curiosity; *Educational Theories; Incentives; *Independent Study; Lifelong Learning; *Motivation; Personal Autonomy; Self Reward; Theory Practice Relationship

ABSTRACT

Although a copious body of research literature concerning the practice of adult self-directed learning exists, the theoretical dimension remains undernourished and poorly developed. If a theory for self-directed learning is to be developed, educators have to decide what is the critical element among the three words in the term self-directed learning or decide that the critical element is not one of the words but the synergetic consequence of combining the three words. Then theory-builders can address such questions as the following: (1) Is self-directed learning related to personality? How? Why? (2) Is self-directed learning developmental? Why? (3) Is self-directed learning behavior-variable? Why; and (4) Can self-direction in learning be enhanced or hindered? How? Why? Because the significance of such questions is embedded in theory, each can be traced backward into other theories of adults and children and horizontally to related theories of instruction and curriculum. By using such theories to analyze the answers to the questions asked earlier, information about self-directed learning can be converted to knowledge. Intrinsic motivation theory appears to provide some useful propositions for students of self-directed learning, and the idea of intrinsic motivation has even been used as a synonym for inquiry and self-directed learning. (The document includes a 12-item bibliography.) (CML)

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THEORETICAL FOUNDATIONS FOR SELF-DIRECTED LEARNING

Huey B. Long*

The idea of self-directed learning appeared in adult education literature with limited theoretical support. It was primarily a practice idea that emerged most directly from two sources: Allen Tough's (1965, 1971) research on learning projects and Malcolm Knowles' (1970) philosophical position that he labeled andragogy. Once the practice and philosophically based concepts permeated the literature adult education researchers began to identify research problems for investigation. Unfortunately, the theoretical justifications and rationale for the research were meager. As a result, even though a copious body of research literature concerning adult self-directed learning exists the theoretical dimension remains undernourished and poorly developed.

A concomitant weakness is found in adult educators' conceptualization of self-directed learning. Given the limited theoretical development of self-directed learning the conceptual confusion concerning the topic is understandable. While the situation is understandable it does not necessarily follow that it is desirable or even acceptable. Therefore, the purpose of this paper is three fold: (a) to encourage greater emphasis upon theoretical concerns in self-directed learning, (b) to identify some theoretical areas that might inform better conceptualization of self-directed learning and provide stronger theoretical foundations for both practice and theory, and (c) to apply theoretical positions from intrinsic motivation to self-directed learning.

Emphasis on Theory

One might ask, if research concerning self-directed learning is productive, why bother with the difficult problems of theoretical development? That is indeed a provocative question, but it reveals limited awareness of the study of self-directed learning. A common point of concern at the three past North American Symposia on Adult Self-Directed Learning has been with definition and concept. Usually, three or more definitions and/or concepts of self-directed adult learning have been used by discussants. As a result some discussants limit the topic totally to individual and independent learning. Another view does not limit the activity to solitary learning, but does restrict it to non-school activities even though school-like techniques may be used. While yet other discussants are equally convinced that self-directed learning depends upon the interaction between educational techniques and personal psychological control or some similar construct. It is apparent that the above ideas exist on a continuum with the first being the most restrictive and the latter being the most inclusive.

If we are going to develop a theory base for self-directed learning we need to define the term and proceed with explanation within parameters established by interlocking propositions and hypothesis. We need to determine what is the critical element or relationship among the elements in the three part term, (1) self- (2) directed (3) learning. Is the emphasis on the role of <u>self</u>, <u>directed</u> or <u>learning</u>? Or are we to emphasize the synergetic consequence of combining the three powerful terms?

Once we determine the above we can proceed to address questions such as the following:

* Is self-directed learning related to personality? How? Why?
* Is self-directed learning developmental? Why?
* Is self-directed learning behavior variable? Why?
* Can self-direction in learning be enhanced or hindered? How? Why?

*This research was supported by the Oklahoma Research Center for Continuing Professional
and Higher Education, College Education, University of Oklahoma.

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The significance of the answers to each of the above questions is embedded in theory. They can be traced backward into other theories of the human adult and child. For example, if self-directed learning can be explained by personality we need to understand personality development and how it effects behavior. Also, the questions spread horizontally to related theories of instruction and curriculum, e.g., if self-directed learning is a learning style how do we best devise and use instructional techniques to account for variability and similarity? Or, if self-directed learning is merely environmentally determined, we can place all of our energies upon the creation and manipulation of environments. Without theory, the answers we obtain to the above questions often are only isolated items floating unconnected in a sea of information. Theory construction will help us to transform information into knowledge.

Theoretical Foundations

Two theoretical areas from psychology appear to be potentially linked to many ideas about self-directed learning. These two areas are self-theory and theory of intrinsic motivation. Even though self-theory and motivation are related in important ways (Purkey, 1970), this paper focuses on the latter.

Intrinsic motivation theory contains a variety of assumptions about the origins and arousal of motivation. Specifically, we are concerned with motivation to learn. Therefore, it is noteworthy to observe most of the different hypotheses about origins and development of intrinsic motivation seem to be related to positions that are of interest to students of self-directed learning. For examples, if we define self-directed learning in terms of psychological control or psychological initiative, several of the propositions favored by selected theorists, discussed below, apply. Berlyne's (Rowland & McGuire, 1971) concept of epistemic curiosity may be particularly useful in explaining self-directed learning. According to Berlyne's conceptualization, epistemic curiosity is induced by conflict and is relieved by the acquisition of knowledge based on a construct he refers to as directed thinking. According to Berlyne the strength of epistemic curiosity increases with each successful experience.

Hunt (1971) emphasizes the satisfaction that is inherent in information processing and action. He also believes that intrinsic motivation emerges from incongruity. Incongruity occurs when there is a discrepancy between sensory information and expectations. Furthermore, he proposes that expectations, which he calls standards, are developmental in origin and emerge from the individual's informational interaction with circumstances. For example, naive concepts of heat are inconsistent with the principles that underlie the operation of an air conditioner or heat pump. According to Hunt, when a learner is presented with such a conflict in information and knowledge the search for an explanation will be stimulated by intrinsic motivation. Of course, some individuals will be more strongly motivated to search for an explanation than others; why this is so also happens to be of interest to both motivation theorists and students of self-directed learning.

McReynolds (1971) accounts for intrinsic motivation in a slightly different way. He uses a concept similar to Piaget's assimilation/accommodation idea. These internal processes are applied to what he calls sensory motivation and cognitive motivation. Sensory motivation is designed to address sensory data in early childhood while cognitive motivation develops later. Both deal with assimilation and accommodation, however, as the individual develops, cognitive structures and cognitive systems also develop. Consequently, individuals store greater amounts of information in cognitive structures that lead to greater cognitive stability. As unique information or incongruous information is encountered the individual is challenged to assimilate it into existing structures or to change structures to accommodate the new information. It is psychologically easier to assimilate than to accommodate, because accommodation requires destabilization. Incongruity, hence, leads to instability. McReynolds' theory considers maximum, minimum, and optimum levels of what he calls unassimilated information that results in cognitive innovation. In contrast to the image of the self-directed learner or intrinsically motivated person, often presented and as illustrated later by Suchman (1971) and Faw (1971), McReynolds believes the human tends to keep unassimilated information at a minimum to

the point of selectively avoiding incongruent input. The process of selectively avoiding incongruent circumstances may be related to questions of why some learners may appear to be more self-directed in learning than others.

McReynold's expanded his earlier concept by adding another important idea that he calls "cognitive commitments". Cognitive commitments emerge from unclosed, unfinished cognitive structures and often are defined in terms of an end state, goal or result, such as completing a research project, writing an article or earning a promotion. Cognitive commitments, according to McReynolds are associated with self-concept and self-image. This idea may be related to questions students of self-directed learning have concerning the persistence of some learners compared to others.

Suchman (1971) bases his ideas of intrinsic motivation upon inquiry and the process of giving meaning to sensory data. Accordingly, inquiry is central to human nature. He defines it further as a natural, inborn human process; the pursuit of some kind of new meaning or experiences; it is free, open and self-directed. The inquirers' sense of freedom, which determines how they interact with their environment is central to the process. He says these definitions do not refer to behavior as much as to a state of mind.

His concept of closure inquiry is similar to McReynold's idea of cognitive commitment. Interestingly, he believes that old and young people differ in their inquiry patterns and focus. He says

> --- as people grow older their patterns of inquiry tend to shift from an existential and intrinsically motivated playful experiences to a more pragmatic, goal oriented, and somewhat more grim work experiences. It is not certain --- the extent to which this is a function of learning within the culture as opposed to the general development of the organism. (Suchman, 1971, pp. 70-71)

Faw (1971) believes an individual's curiosity or intrinsic motivation is demonstrated by aggressive, positive searching behaviors. He says elementary school children show curiosity when they

> (1) reacts (sic) positively to a new, strange, incongruous, or mysterious elements in his (sic) environment by moving toward them, by exploring them, or by manipulating them;
> (2) exhibits (sic) a need or a desire to know more about himself (sic) and/or his (sic) environment;
> (3) scans (sic) --- surroundings seeking new experience ---
> (4) persists (sic) in examining and exploring stimuli in order to know more about them. (Faw, 1971, p. 92)

As others, Faw has noted personality attributes that are associated with high curiosity.

Day (1971, p. 99) suggests that " ... personality psychology is to a large extent the study of individual differences in motivation". He also believes that curiosity may be similar to anxiety in that it can be viewed as both a state or trait characteristic. He, thus, prefers to think of it as a state. Yet, he reports curiosity lies at the intersection of personality variables and motivation variables.

Application to SDL

Intrinsic motivation theory appears to provide some useful propositions for students of self-directed learning. At least one theorist, Suchman (1971), uses the idea of intrinsic motivation as a synonym for inquiry and self-directed learning.

If self-directed learning is thought of as some kind of learning activity (encounters/experiences in the language of some intrinsic motivation theorists) that depends upon personally initiated, controlled and/or energized effort, intrinsic motivation theory may help us to explain or at least to hypothetically examine important questions. Questions of self-directed learning practice and theory may be informed by theories of

intrinsic motivation. Fortunately, the distinction between independent self-directed learning and self-directed learning in group settings is not critical in the application of intrinsic motivation theory to self-directed learning issues. Some theoretical issues in self-directed learning in addition to those noted earlier are as follows:

- Is the tendency/propensity for self-directed learning innate?
- Can self-directed learning attitude/behavior be increased?
- What kinds of conditions seem to maximize self-direction in learning?
- What kinds of personality attributes are positively/negatively associated with self-directed learning.

The intrinsic motivation theorists discussed in the previous section of this paper address most of the above issues in some way. Complete agreement, however, is not to be found in the positions reported. For example, Suchman (1971) takes a position that would lead one to conclude that self-directed learning is innate, e.g. it is a human bio-genetic characteristic. Day (1971), in contrast infers that it may be a state condition, e.g. it depends on other variables. One kind of variable is personality and consideration of personality takes us into the issue of the origins personality. Most of the theorists seem to agree that the strength of intrinsic motivation is variable. This position suggests that facilitators, professors, teachers, trainers, and so forth can increase self-directed learning behavior in specific situations. Allender and Silberman (1979) have illustrated the relative merits of three instructional methods in student self-directed learning. The three conditions were (a) teacher guided, (b) group planned and (c) individual oriented. Strengths of each model are discussed by the authors. The range by which self-directed learning can be enhanced seems to be variable, however. That is, some learners may have a greater receptivity to self-directed learning and their response such as aggressiveness, energy expenditure and persistence may be greater than the responses of others.

Incongruity seems to be an important principle in the positions of most of the intrinsic motivation theorists. Some such as McReynolds (1971) caution, however, that incongruity can be too great. As a result, it will be ignored or avoided rather than confronted and attacked. Additional study is needed to develop principles that would be helpful to teachers in determining optimal arousal.

Intrinsic motivation theory in self-directed theory is neglected but suggested. Long (1988) conceptualizes self-directed learning on two axis. a horizontal one and a vertical one. The vertical axis represents a personality/psychological continuum from low to high, which may be a representation of motivation as well as psychological strength. The horizontal axis depicts educational or pedagogical techniques that range from restrictive authoritarian teacher dominated activities to activities where the learner has complete freedom in pursuit of learning. Neither of the hypothetical extremes is believed to exist in reality. The model developed by Long is limited, however, to the teaching-learning transaction. It does not address some of the questions discussed here such as the origins of critical personality characteristics or the techniques that arouse optimal intrinsic effort. Other models are required for these purposes. Students of self-directed learning may discover intrinsic motivation theory to be a productive source of inspiration and guidance.

Conclusions

This paper was designed to address the following topics:

1. To emphasize theory construction in self-directed learning.

2. To identify some theoretical areas that might inform conceptualization of self-directed learning and provide stronger theoretical foundations for practice and theory.

3. To apply theoretical positions in intrinsic motivation to self-directed learning.

Development of the above topics suggests that students of self-directed learning may profit from a greater awareness of intrinsic motivation theory. Intrinsic motivation theory is concerned with some of the same fundamental questions that challenge educators interested in self-directed learning. One model of self-directed learning (Long, 1988) reflects elements that seem to be consistent with intrinsic motivation theory, however, it does not adequately address some significant concepts such as incongruity and the origins of what he refers to as psychological control.

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